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**Application No. 09/546,399**

**Amendment Dated: August 9, 2004**

**Reply to Office Action mailed April 7, 2004**

## **R E M A R K S**

After entry of the amendment, claims 1-2, and 4-8 are pending. Claims 25-29 are canceled in response to the restriction requirement. Applicants reserve the right to pursue the subject matter of claims 25-29 in one or more divisional applications. No issues of new matter should arise, and entry of the amendment is respectfully requested.

### **The 35 U.S.C. §112, First Paragraph, Rejections**

On page 2 of the Office Action, the Examiner rejected claim 8 under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such as way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention. Applicants traverse the rejection.

The Examiner has rejected claim 8 because, as stated on page 3 of the Office Action, the specification “recites the phrase ‘identity matrix I’ on page 9, but does not otherwise identify or describe such a matrix.” On page 3 of the Office Action, the Examiner also states:

it is noted that limitations of the claims must nonetheless be completely described SOMEWHERE, whether in the specification, claims, or drawings, such that one skilled in the art would be able to envision the claimed invention. (emphasis in original.)

Applicants note that the Examiner provides no support for this assertion, and submit that the Examiner’s assertion mischaracterizes the law.

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In particular, Applicants note that in *Fujikawa v. Wattanasin*, 39 USPQ 2d 1895, 1904 (Fed. Cir. 1996), the Federal Circuit stated:

**ipsis verbis disclosure is not necessary to satisfy the written description requirement of section 112. Instead, the disclosure need only reasonably convey to persons skilled in the art that the inventor had possession of the subject matter in question.** *In re Edwards*, 568 F.2d 1349, 1351-52, 196 USPQ 465, 467 (CCPA 1978). (emphasis added).

Furthermore, in *In re Alton*, 37 USPQ 2d 1578, 1584 (Fed. Cir. 1996), the Federal Circuit stated “[i]f a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing, **even if every nuance of the claims is not explicitly described in the specification**, then the adequate written description requirement is met. (emphasis added).

Applicants provide a listing of the following references, each of which refer to and describe the identity matrix. Applicants also submit herewith, as attachments, excerpts from these references containing a discussion of the identity matrix.

1. Agnew, J.L. and R.C. Knapp. *Linear Algebra with Applications*, Third Edition. Brooks/Cole Publishing Company, Pacific Grove, CA. 1989. ISBN 0-534-09456-2.
2. Blyth, T.S. and E.F. Robertson. *Basic Linear Algebra*. Springer-Verlag, New York. 1998. ISBN 3-540-76122-5.
3. Herstein, I.N. and D.J. Winter. *A Primer on Linear Algebra*. Macmillian Publishing Company, New York. 1988. ISBN 0-02-353953-4.
4. Isaak, S. and M.N. Manouelian. *Basic Concepts of Linear Algebra*. W.W. Norton & Company, New York. 1976. ISBN 0-393-09919-6.

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5. Leduc, S.A. *Linear Algebra*. Cliffs Notes, Inc., Lincoln, NE. 1996. ISBN 0-8220-5331-4.
6. Nering, E.D. *Elementary Linear Algebra*. W.B. Saunders Company, Philadelphia. 1974. ISBN 0-7216-6755-4.
7. Schneider, H. and G.P. Barker. Matrices and Linear Algebra, 2<sup>nd</sup> Edition reprint. Dover Publications, New York. ISBN 0-486-66014-1.

The identity matrix, denoted characteristically by the letter *I*, is described in each of the above-identified references in the same the manner.

Furthermore, Applicants submit that the following ten (10) U.S. patents disclose the identity matrix, without defining it, further establishing identity matrix as a fundamental concept known and understood by those skilled in the art.

Patent Number	Title	Column and line numbers	Issue Date
6,711,581	System And Method for Data Collection, Evaluation, Information Generation, and Presentation	Col. 19, line 32	03/23/04
6,701,305	Methods, Apparatus and Computer Program Products for Information Retrieval and Document Classification Utilizing a Multidimensional Subspace	Col. 12, line 41	03/02/04
6,662,192	System and Method for Data Collection, Evaluation, Information Generation, and Presentation	Col. 18, line 59	12/09/03
6,636,862	Method and System for the Dynamic Analysis of Data	Col. 12, line 26; Col. 17, line 29; Col. 21, line 59; Col. 27, line 67	10/21/03
6,633,857	Relevance Vector Machine	Col. 6, line 65	10/14/03
6,754,399	Color Matching Image Data	Col. 5, line 59	06/22/04
6,738,682	Method and Apparatus for Scheduling Based on State Estimation Uncertainties	Col. 37, line 59	05/18/04
6,697,767	Robust Process Identification and Auto-Tuning Control	Col. 30, lines 41-43	02/24/04
6,691,045	Method for Determining Discrete Quantitative Structure Activity Relationships	Col. 11, line 8	02/10/04
6,674,532	Interferometric Polarization Interrogating Filter Assembly and Method	Col. 21, line 65	01/06/04

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Applicants respectfully submit that the record now before the Examiner provides sufficient evidence (and indication) that one of ordinary skill in the art would recognize what is meant by the term “identity matrix.” Accordingly, Applicants request that the Examiner withdraw the rejection of claims 1-2, and 4-8 under 35 U.S.C. §112, first paragraph.

On page 3 of the Office Action, the Examiner asserts that “it is not clear whether matrix  $I$  is intended to be the same as  $\Sigma_k$  (not indicated by the language of the claims) or is intended to be PART OF the matrix  $\Sigma_k$ . (emphasis in original). Applicants have amended claim 8 to clarify the matter. In particular, claim 8 has been amended to recite that “ $\Sigma_k$  is the identity matrix  $I$ .”

On pages 3-4 of the office action, the Examiner rejected claims 1-2, 4-8 and 22-24 under 35 U.S.C. §112, first paragraph, with regard to the phrase “the weighting.” Applicants submit that a weighting function is inherent in Applicants disclosure. However, to expedite prosecution of this Application, Applicants have amended claim 1 to recite the term “frequency.” Support for the amendment of claim 1 is found in the specification at least at page 22, line 4 – page 24, line 3, and at page 32, lines 8-13. Accordingly, Applicants request that the Examiner withdraw the rejection of claims 1-2, and 4-8 under 35 U.S.C. §112, first paragraph.

#### **The 35 U.S.C. §112, Second Paragraph, Rejections**

On pages 4-5 of the Office Action, the Examiner has rejected claim 1, indicating there is insufficient antecedent basis for the limitation, “the weighting” in line 8. As discussed above, claim 1 has been amended to render the Examiner’s rejection of claim 1 moot. Accordingly, Applicants request that the Examiner withdraw the rejection of claim 1 under 35 U.S.C. §112, second paragraph.

On page 5 of the Office Action, the Examiner rejected claim 8 because “an ‘identity matrix  $I$ ’ is not described or exemplified by the instant specification.” As discussed above, the identity

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matrix, *I*, is well-known, particularly to those skilled in the art. Accordingly, Applicants request that the Examiner withdraw the rejection of claim 8 under 35 U.S.C. §112, second paragraph.

On page 5 of the Office Action, the Examiner rejected claim 24 because the claim recites that a variable “is the least squared closest to X.” Claim 24 has been canceled to expedite prosecution of the application. Applicants reserve the right to pursue the subject matter of claim 24 in one or more continuation applications.

In view of the foregoing, Applicants respectfully request that the presently pending claims be examined on the merits. If there are any matters that would delay this Application from passing to issue, the Examiner is requested, at her earliest convenience, to telephone the undersigned to resolve such matter(s).